CLAIMS

What is claimed is:

1. A permanent magnet excited rotor, for an electric drive, comprising:
   a rotor plate pack; and
   a plurality of permanent magnets;
   wherein at least one rotor plate section of said plate pack comprises pole gaps to increase the magnetic transverse resistance for the transverse axis of said rotor.

2. The permanent magnet excited rotor of claim 1, wherein:
   said plurality of permanent magnets of said rotor is disposed on the upper surface of a pertaining rotor plate in such a way that said plurality of permanent magnets, during assembly said rotor, are arranged in a stator at the corresponding air gap between said rotor and said stator.

3. The permanent magnetic excited rotor of claim 2, wherein:
   said pole gaps are disposed such a manner that there is present a pole coverage of the upper surface of said rotor plate by said plurality of permanent magnets, with a coverage by said plurality of permanent magnets in the range of from about 70% to about 80 %.

4. The permanent magnet excited rotor of claim 3, wherein:
the pertaining depth of said pole gaps in said rotor plate is greater than the pertaining width of said air gap between said rotor, mounted in said stator, and said stator.

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5. The permanent magnet excited rotor of claim 4, wherein:
said pole gaps are disposed in said rotor plate pack in substantially equidistant manner.

6. The permanent magnet excited rotor of claim 5, wherein:
said pole gaps are directly disposed at said air gap, particularly that they are configured in the upper surface of said rotor plate pack by at least one of: milling, stamping, and punching.

7. The permanent magnet excited rotor of claim 6, wherein:
said pole gaps are disposed in covered manner in said rotor plate section, particularly that they are provided in said rotor plate pack by a punching operation.

8. The permanent magnet excited rotor of claim 7, wherein:
said pole gaps are substantially filled by a material that is substantially amagnetic.

9. The permanent magnet excited rotor of claim 8, wherein:
said plurality of permanent magnets comprises rare-earth permanent magnets.

10. A permanent magnet excited electric drive, comprising:
a stator comprising a three-wire rotary field winding of a predetermined number of pole pairs ; and
said rotor of claim 1;
said rotor comprising the same number of pole pairs as said stator comprising a three-wire rotary field winding of a predetermined number of pole pairs.

11. The permanent magnet excited electric drive of claim 9, wherein:
said drive is configured to be driven in a range of constant capacity by way of field weakening at variable number of rotations.